

REMARKS

In view of the above amendments and the following remarks, reconsideration of the rejections contained in the Office Action of September 7, 2006 is respectfully requested.

The Examiner rejected previously-presented claims 34 and 35 under 35 U.S.C. § 112, second paragraph, as being indefinite. In particular, the Examiner asserted that the phrase “said second one” as recited in dependent claim 34 does not have proper antecedent basis. In this regard, the Examiner is requested to note that dependent claims 34 and 35, as well as several of the other dependent claims, have now been amended as indicated above so as to provide consistency with amended independent claim 22. In view of these amendments, it is submitted that the Examiner’s formal rejections have also been overcome. Therefore, the Examiner is respectfully requested to withdraw the formal rejections under § 112.

The Examiner rejected independent claims 22 and 44, and elected dependent claims 33-39, 41, and 43 as being anticipated by the Röck reference (US 4,089,567). However, independent claims 22 and 44 have now been amended so as to further clarify the distinctions between the present invention and the prior art. Therefore, for the reasons discussed below, it is respectfully submitted that amended independent claims 22 and 44, and the claims that depend therefrom, are clearly patentable over the prior art of record.

The Claimed Invention and the Problem to be Solved

In order to provide a better understanding of the distinctions between the present invention and the prior art, a discussion of the present invention and the problems overcome by the present invention will first be provided below with reference to both the attached Appendix and various portions of the present application. However, reference to any portions of the present application or the attached Appendix is provided only for illustrative purposes, and is not intended to otherwise limit the scope of the claims to any specific embodiments.

As illustrated in Figures 13a-13e and Figures 15a-15e of the present application, the present invention is generally directed to a pull-out guide assembly for a drawer, that comprises a support rail 1 to be mounted on a carcass, a pull-out rail 2 to be mounted on a drawer, and a running carriage 3 mounted between the support rail 1 and the pull-out rail 2 and operable to

move between a front end position (shown generally in Figure 13e) and a rear end position (shown generally in Figure 13a) in a differential manner. The running carriage includes rollers 4 (see Figure 2) for transmitting a load of the drawer between the support rail 1 and the pull-out rail 2, and a locking device 17.

Conventional pull-out guide assemblies which include a carriage *without* the locking device as recited in amended independent claims 22 and 44 normally operate as illustrated in Figures 1 and 2a of the attached Appendix. In particular, the running carriage will move in a differential manner when the pull-out rail is moved relative to the support rail (e.g., when a drawer on which the pull-out rail is mounted is opened). For example, as illustrated in Figure 2a of the Appendix, for every two units of distance that the pull-out rail moves, the carriage will move one unit of distance. Unfortunately, after a period of operation of the pull-out guide assembly, a deviation between the ideal location of the carriage and the actual location of the carriage will occur, as illustrated in Figure 2b of the Appendix (due, for example, to minor slippage). Over time, this deviation between the ideal and actual location of the carriage will prevent conventional pull-out guide assemblies from allowing a drawer to be completely opened or closed.

The locking device 17 of the running carriage as recited in amended independent claims 22 and 44 overcomes the above problem. In particular, as further recited in amended independent claims 22 and 44, the locking device 17 is operable to lock the running carriage 3 to the *pull-out rail* at a first determined point *located between the front end position and the rear end position*, and is operable to unlock the running carriage from the *pull-out rail* at a second predetermined point *located between the front end position and the rear end position* due to relative movement between the support rail 1 and the pull-out rail 2. The support rail 1, the pull-out rail 2, and the running carriage 3 are arranged and interconnected such that, if the running carriage 3 is locked to the pull-out rail 2 at the first predetermined point by the locking device 17 while moving toward one of the first end position and the rear end position, the running carriage 3 is operable to continue moving toward the one of the front end position and the rear end position in the differential manner after being unlocked by the locking device 17 at the second predetermined point.

The operation of the pull-out guide assembly as recited in amended independent claims 22 and 44 is illustrated schematically in Figures 3a-3d of the Appendix. In particular, a carriage which has deviated from its ideal location is shown in Figure 3a. As the pull-out rail moves toward the front end position (i.e., toward the right in Figures 3a-3d), the locking device (shown schematically as an arrow extending from the pull-out rail in Figures 3a-3d) locks the running carriage to the pull-out rail at a first predetermined position as shown in Figure 3b, while the pull-out rail continues to move toward the front end position. Once the locking device reaches a second predetermined point as shown in Figure 3c (i.e., a point at which the deviation in the ideal location of the running carriage has been corrected), the locking device releases the carriage and the pull-out rail continues to move toward the front end position as illustrated in Figure 3d.

The arrangement and operation of the support rail 1, the pull-out rail 2, and the running carriage 3 including the locking device 17 is more fully described in the drawings and specification of the present application. Firstly, if the location of the running carriage 3 has not deviated from the ideal location as discussed above, the operation of the pull-out guide assembly as recited in amended independent claims 22 and 44 is illustrated in Figures 13a-13e and explained on page 7, lines 21-31 of the original specification. In particular, as the pull-out rail 2 moves toward the front end position, the running carriage 3 also moves from a rear end position (generally illustrated in Figure 13a) toward a front end position (generally illustrated in Figure 13e) without the locking device 17 locking the running carriage 3 to the pull-out rail 2.

However, if the location of the carriage *has* deviated from the ideal location (as illustrated in Figures 2b, 3a, and 3b of the attached Appendix), then the pull-out guide assembly as recited in amended independent claims 22 and 44 will operate as illustrated in Figures 15a-15e and explained on page 8, lines 6-12 of the original specification. In particular, the running carriage 3 will move in a differential manner toward the front end position (i.e., toward the right in Figures 15a-15e) until the edge 26 of opening 50 contacts the locking device 17 at a first predetermined point. At this first predetermined point, the locking device 17 locks the carriage 13 to the pull-out rail 2, as illustrated in Figure 15a. Thus, because the carriage 3 is locked to the pull-out rail 2 by the locking device 17, the running carriage will move the same distance as the pull-out rail 2 (i.e., the running carriage 3 will not move in a differential manner), so as to therefore correct the

deviation from the ideal position (i.e., be placed back in the ideal position), as illustrated in Figures 15b and 15c. At the second predetermined position at which the running carriage 3 is in the ideal position, the locking device 17 unlocks the running carriage 3 from the pull-out rail 2 as illustrated in Figure 15d, and the running carriage 3 then continues moving toward the front end position in a differential manner between the pull-out rail 2 and the support rail 1, as illustrated in Figure 15e. Consequently, the deviation of the running carriage from the ideal location is corrected, and the drawer can be fully extended outward or completely pushed in while maintaining smooth operation.

The Prior Art

The Röck reference discloses a pull-out guide for drawers including a carriage 3. However, as will be explained in detail below, the Röck reference does not disclose or suggest several features of the present invention, including the following:

- (A) a locking device of a running carriage that is operable to lock the running carriage to a *pull-out rail*, and is operable to unlock the running carriage from the *pull-out rail*; and
- (B) a running carriage that is operable to move between a front end position and a rear end position, wherein the locking device is operable to lock the running carriage to the pull-out rail at *a first predetermined point located between the front end position and the rear end position*, and is operable to unlock the running carriage from the pull-out rail at *a second predetermined point located between the front end position and the rear end position*.

(A) Firstly, as noted above, the Röck reference does not teach or suggest a locking device that is operable to lock a running carriage *to a pull-out rail*. In contrast, the Röck reference only teaches that the “mobile unit” (i.e., carriage) 6 is locked to a track of the *support rail 1* (see, for example, column 3, lines 37-43; column 3, lines 57-68; and column 4, lines 16-23). In fact, because the purpose of the Röck reference is to provide a pull-out guide which allows the entire drawer and guide rail to be withdrawn from the support rail (see column 1, lines 34-37), while also preventing the mobile unit (i.e., carriage) 6 from being pulled completely out of the support rail 1, there is not even a suggestion in the Röck reference to provide a locking device that is

operable to lock a running carriage to a pull-out rail instead of a support rail. In fact, such a modification would completely change the principle of operation of the Röck reference. Thus, in view of well-established case law, such a modification cannot render the claimed invention *prima facie* obvious in view of the Röck reference. See *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

(B) Secondly, in addition to the fact that the mobile unit of the Röck reference can only be locked to the support rail, this locking and unlocking does not occur at predetermined points located *between a front end position and a rear end position*. Instead, the mobile unit 6 is locked *at the front end position*. In particular, as explained in column 4, lines 11-31 of the Röck reference, the peg 26 of the latch 22, as well as the abutment 12' and 12" of the support rail 1, will lock the mobile unit 6 to the support rail when the guide rail (i.e., pull-out rail) 4 is pulled completely out of the support rail 1 so as to prevent the mobile unit 6 from falling out of the support rail 1. In other words, this locking and subsequent unlocking occurs only when the mobile unit (carriage) 6 is at the front-most (i.e., front end) position, rather than at predetermined points between the front end position and a rear end position. Moreover, because the purpose of the Röck reference is to prevent the mobile unit 6 from falling out of the support rail 1, rather than to correct any deviation in location of the carriage as in the present invention, there is not even a suggestion to lock the mobile unit 6 at any point *other than* the front end position, such as a point between a front end position and a rear end position.

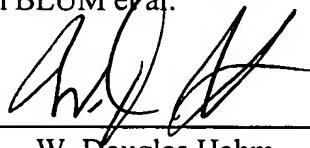
As noted above, the Röck reference does not teach a locking device arranged with respect to a support rail, a pull-out rail, and a running carriage as recited in amended independent claims 22 and 44. Therefore, it is respectfully submitted that the Röck reference does not anticipate amended independent claims 22 and 44. Furthermore, because the Röck reference does not even suggest this arrangement, one of ordinary skill in the art would not be motivated to modify the Röck reference so as to obtain the invention recited in amended independent claims 22 and 44. Accordingly, it is respectfully submitted that amended independent claims 22 and 44, and the claims that depend therefrom, are clearly patentable over the prior art of record.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance. However, if the Examiner should have any comments or suggestions to help speed the prosecution of this application, the Examiner is requested to contact the Applicant's undersigned representative.

Respectfully submitted,

Egon BLUM et al.

By:


W. Douglas Hahm
Registration No. 44,142
Attorney for Applicants

WDH/ck
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
January 5, 2007

★ NOTE: THESE ARE NOT DRAWING AMENDMENTS

AMENDMENT
FILED JAN 5, 2007

Fig. 1

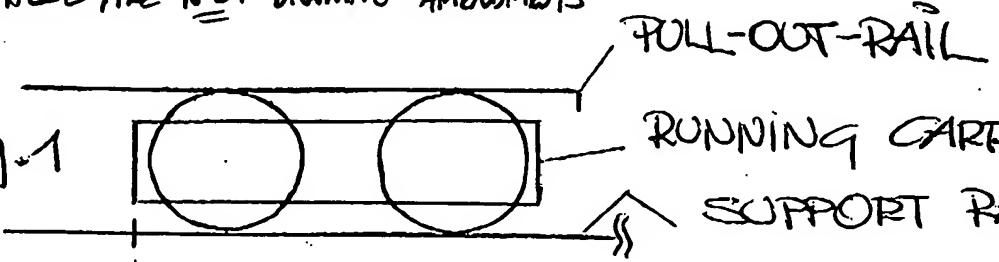


Fig. 2a

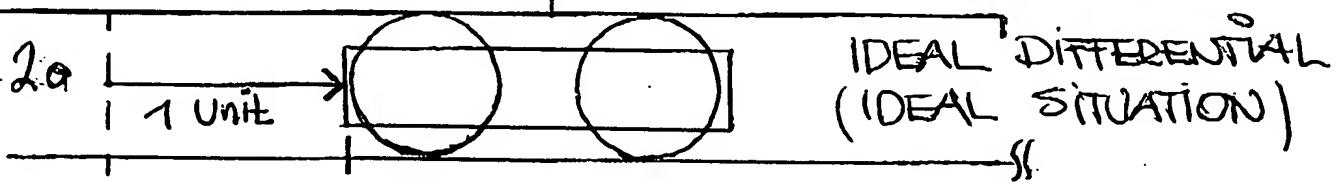
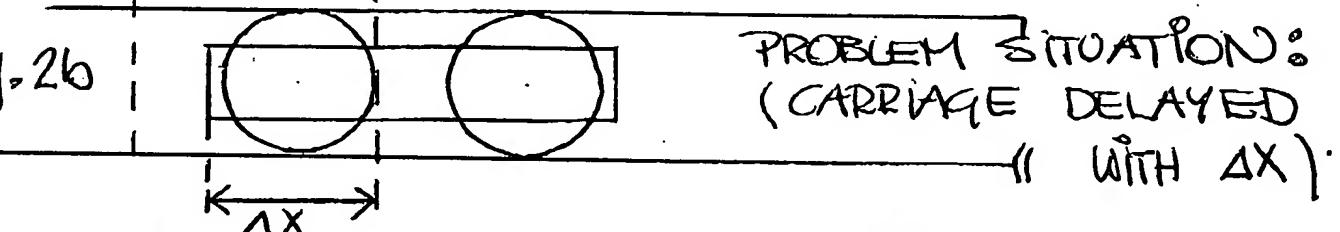


Fig. 2b



SOLUTION:

Fig. 3a

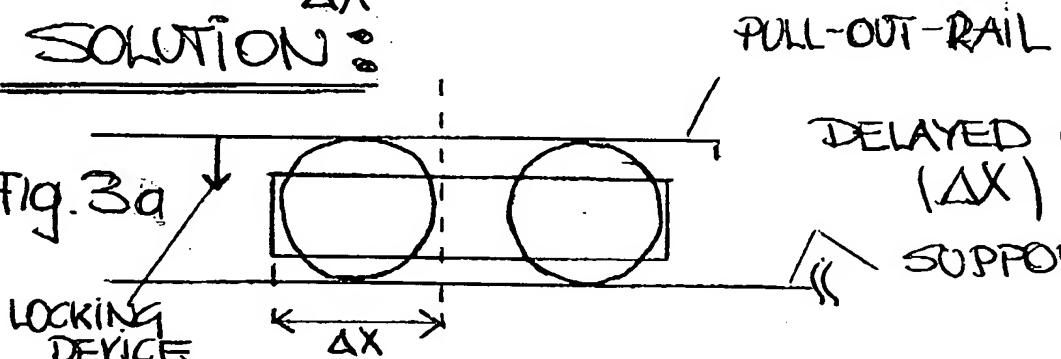


Fig. 3b

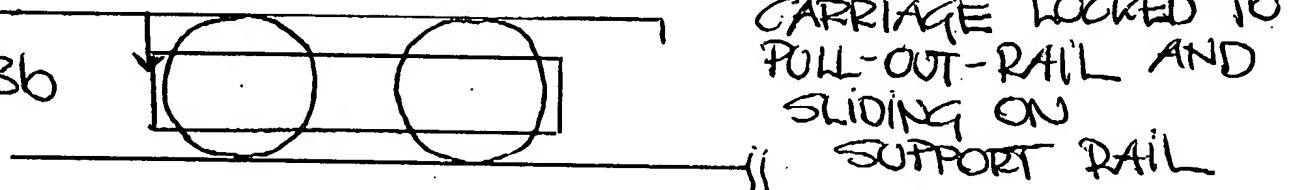


Fig. 3c

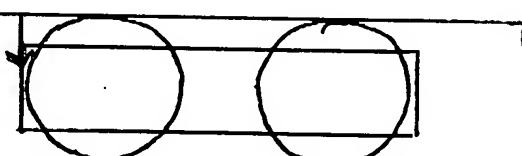


Fig. 3d

